

4w



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,245	12/20/2001	Paul E. Gregory	10013636-1	9131

7590 12/22/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

FLEMING, FRITZ M

ART UNIT	PAPER NUMBER
----------	--------------

2182

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/034,245	GREGORY, PAUL E.	
	Examiner	Art Unit	
	Fritz M Fleming	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/20/01</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 states "the timing signal" which lacks clear antecedent basis as first and second have been previously recited. It is suggested that perhaps the "second" is being claimed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6,8-11,14-17,20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Zlotnick.

Zlotnick issued in 1996 and is a competent reference under 102(b). Please draw your attention to Figure 1 which provides for the clear anticipation of the indicated claims.

Per the claims, a data device is seen as the combined counter (14), EPROM (12) and Shift Register (16). The controlling devices are seen as the plurality of FPGAs 18-22.

In response to a START at 18, configuration data is first sent to 18, and then when it is

Art Unit: 2182

finished, configuration data is sent to 20, and when it is done, configuration data is sent to 22. Before the configuration data is sent to the first device 18, the clock is sent from 18 to 16, thus anticipating the first timing signal, as such provides a function of transmitting the data to the first device 18. See column 2, lines 5-30. Before the data is sent to the second device, the second device is reset by the DONE18, as such provides an enable per column 2, lines 30-45. In a similar manner, the second device 20 sends out its clock to 16 before the data is sent to 20, thus anticipating the second timing signal. See column 2, lines 30-45. Thus the transfer of data to the second device is a function of the first clock signal, as the first clock signal must finish before data is allowed to be sent to the second device. The individual clock signals from each device do not pass through another device. Likewise, the data to the second device does not pass through the first. Data is transmitted serially. Thus the data is sent in portions to each device individually, wherein each device sends out its own clock to the data device to signal its turn for the data. The FPGAs are ICs per column 1. A third signal is seen as DONE18 which goes to 20 before 20 sends out its clock. As far as claims 15+ are concerned, the plurality of signals have been shown, and the configuration of Figure 1 meets the broad recitation of being executable on a computing device, as the FPGAs are configured, which involves the execution of the signals as well as associated computations. Configuration data is stored as data in EPROM, which is then sent out as signals to the FPGAs themselves.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 7,12,13,18,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zlotnick in view of Wang et al.

Zlotnick lacks transmitting of the data from the first to second device.

Wang et al. shows a configuration in Figure 2 in which data does not pass through the FPGAs and in Figure 3 a configuration in which the data is sent through the FPGAs.

Thus it is shown that the two configuration types are interchangeable. Notice also that all handshaking signals are passed through each FPGA in Figures 2 and 3.

Thus it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify Zlotnick per the teachings of Wang et al. in order to pass the data through an FPGA (and thus also all required handshaking signals which would then include the clocks of Zlotnick) during the configuration process. The

motivation to do so is provided by Wang et al. in its showing that the two methods are both equally acceptable to configure a series of FPGAs. Gregory is the printed publication.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining references show various techniques in the programming of devices in serial and parallel manners.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz M Fleming whose telephone number is 571-272-4145. The examiner can normally be reached on M-F, 0600-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fritz M Fleming
Primary Examiner
Art Unit 2182

Application/Control Number: 10/034,245

Art Unit: 2182

Page 6

fmf


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100